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Those involved with plant and animal breeding may also be involved with genetic technologies. When Gregor Mendel worked with Pea plants, he chose how they would reproduce. As he began his experiments it is possible that he did not know the offspring would look different than the parents. Farmers who bred animals through the centuries realized that offspring often looked or acted like their parents. Some of the most notable advances in agriculture are due to genetic engineering. The seedless orange, grape, and watermelon and Purebred animals are the result of selective breeding.



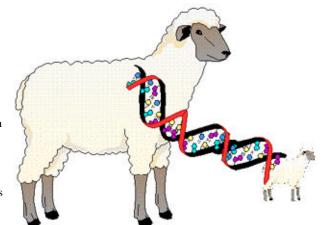
Discover how genetics is used as a career as scientists use genes to

## clone.

One of the most noted advancements in Genetic issues occurred when "Dolly" the sheep was born on February 24, 1997 in Edinburgh Scotland. She was cloned from a cell of another sheep. Prior to her birth scientists thought mammals could not be successfully cloned and/or survive. On April 23, 1998 Dolly gave birth to a daughter named "Bonnie". This birth proved that Dolly was not just a successful living clone when she was born, but that she succeeded in growing and maturing to the adult stage.

Many debate whether cloning should be allowed in humans or even in animals. Some propose this reproduction method will cause sports teams to use cloned superstars. Others suggest cloning will eliminate disease and hereditary disorders from Earth's species.

Consider the following questions - discuss them with your class or family.



- Will cloning produce a greater diversity of genetic material in a species?
- Why or why not?
- Will cloning produce more or less traits?
- Why or why not?
- How do you personally feel about cloning?
- Should cloning be allowed for animals?
- Should cloning be allowed for humans?
- Why did you make these choices for these two questions?







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